

AMENDMENTS TO THE CLAIMS

1.-27. (Canceled)

28. (Currently amended) A method of reducing loss of nitrogen from soil exposed to waste from animals altering the composition of animal waste comprising:

identifying the animals whose waste is applied to said soil;

introducing a treatment substance selected from the group consisting of a urease inhibitor compound and a nitrification inhibitor compound internally to an said animals; and one or more treatment substances that can directly or indirectly affect the conversion of nitrogen-containing compounds in animal waste, once the waste has been excreted

excreting waste from the animals onto the soil, thereby causing less loss of nitrogen from the soil than waste from the animals if said treatment substances were not introduced.

29. (Canceled)

30. (Currently amended) A method as claimed in claim 28 ~~or claim 29~~ wherein said ~~one or more treatment substance~~[[s]] ~~is are~~ introduced to the animal over an extended time period.

31.-36. (Canceled)

37. (New) A method as claimed in claim 28 wherein the animal waste is urine.

38. (New) A method as claimed in claim 28 wherein the treatment substance is a urease inhibitor.

39. (New) A method as claimed in claim 38 wherein the urease inhibitor is N-(n-butyl) thiophosphoric triamide (NBPT).

40. (New) A method as claimed in claim 28 wherein the treatment substance is nitrification inhibitor.

41. (New) A method as claimed in claim 40 wherein the nitrification inhibitor is 3,4-dimethylpyrazole phosphate (DMPP).

42. (New) A method as claimed in claim 40 wherein the nitrification inhibitor is dicyandiamide (DCD).

43. (New) A method of Claim 28 wherein the treatment substance comprises both a urease inhibitor and a nitrification inhibitor.

44. (New) The method as claimed in Claim 28, wherein the treatment substance further comprises a beneficial compound that enhances the soil immobilization of nitrogen containing compounds.

45. (New) A method as claimed in claim 44 wherein the beneficial compound enhances the growth of soil microorganisms.

46. (New) A method as claimed in claim 44 wherein the beneficial compound is a complex carbon source.

47. (New) A method as claimed in claim 44 wherein the beneficial compound is a tannin.

48. (New) A method as claimed in claim 28, wherein the treatment substance is eliminated along with the animal waste onto the soil.

49. (New) A method as claimed in claim 28, wherein the treatment substance is administered orally to an animal.

50. (New) A method as claimed in claim 49, wherein the treatment substance is administered by drench.

51. (New) A method as claimed in claim 49, wherein the treatment substance is administered by incorporating into animal feed.

52. (New) A method as claimed in Claim 49, wherein the treatment substance is administered by incorporating into water.

53. (New) A method as claimed in claim 49 wherein the treatment substance is introduced by a ruminal bolus.

54. (New) A method as claimed in claim 49 wherein the treatment substance is introduced by a rumen-stable delivery device.

55. (New) A method as claimed in claim 54 wherein the treatment substance is introduced by an encapsulation system.

56. (New) A method as claimed in claim 28, wherein the treatment substance is introduced into an animal's bladder.

57. (New) A method as claimed in claim 56 wherein the treatment substance is introduced by a preformed matrix.

58. (New) A method as claimed in claim 57 wherein the matrix is silicone.

59. (New) A method as claimed in claim 56, wherein the treatment substance is introduced by a carrier that has a lower specific gravity than urine.

60. (New) A method as claimed in claim 28 wherein the treatment substance is introduced into said animal by a delivery device, wherein said treatment substance is contained within the inner core of the delivery device.

61. (New) A method as claimed in claim 28 wherein the treatment substance is introduced by administering to said animal a delivery device impregnated with said treatment substance.

62. (New) A method as claimed in claim 28, wherein said treatment substance is delivered by diffusion from a delivery device.

63. (New) A method as claimed in claim 28, wherein said treatment substance is delivered through dissolution of a delivery device.

64. (New) A method as claimed in claim 28 wherein the treatment substance is introduced by sustained, slow release of said treatment substance.

65. (New) A method as claimed in claim 28 wherein the treatment substance is introduced by a delivery device that includes an electrochemical cell.

66. (New) The method as claimed in Claim 28, wherein the treatment substance is introduced internally to said animal by a catheter.

67. (New) A method as claimed in claim 28, wherein the treatment substance is administered within a material selected from the group consisting of lipid-based coatings, wax coatings and polymer matrices.